

IS SYSTEMS DEVELOPMENT SERVICES SPECIALIST

POSITION SUMMARY:

Under general supervision of the Chief of the Public Water Supply Section and for the Bureau of Drinking and Groundwater (DG) complete advanced, complex analysis projects independently and as a Project Lead. Analyze the DG bureau's business processes in-depth and the use of appropriate Information Technology to support them. Analyze the cross-bureau, agency-wide, and state-wide issues that pertain to the DG bureau and propose common solutions to meet agency goals. Perform feasibility, cost-benefit, and systems requirements studies. Plan, develop, and maintain computer programs and systems. Coordinate and monitor the progress of complex, bureau-specific and cross-bureau Department of Natural Resources system development and enhancements. Provide direct services to users. Participate in employee development. Support team efforts as requested by DG management. Work with and when appropriate lead contractors and other staff on team projects.

TIME% GOALS AND WORK ACTIVITIES

30% A. Study and analysis of automated systems and state-wide program area needs.

- A1. Independently study broad (bureau-specific and cross-bureau) user area business processes and recommend applications and technologies to support those processes.
- A2. Interview user area staff and collect or create documentation of existing business processes.
- A3. Assist user area staff in defining and documenting system-related problems; needs, and requirements.
- A4. Assist user area staff in defining and documenting costs, benefits, objectives, and alternatives for automated systems.
- A5. Prepare time estimates, cost estimates, and other required responses to project requests.
- A6. Independently develop, document, and present proposals for systems solutions to meet user area needs.
- A7. Develop systems designs and explain design alternative to users, including the integration of systems with existing systems or with other systems under development.
- A8. Identify and document detailed system requirements to meet project objectives.

- A9. Develop systems and programming specifications, including data models with little oversight
- A10. Lead and participate in general, technical, and post-implementation reviews.
- A11. Independently resolve conflicts and problems through the skilled application of theoretical and practical knowledge of Java applications, Oracle Forms and Reports, and Web PL SQL, as well as the application of general policies and agency-wide / campus-wide IS policies and standards.

5% B. Project management.

- B1. Serve as the lead expert in providing guidance to other staff and contractors in project management techniques, analysis, data modeling, and design.
- B2. Coordinate, monitor, and review the work of the project team.
- B3. Prepare work plans for projects as requested, including re-estimating resource requirements at each phase.
- B4. Oversee a bureau's budget for contracted Information Technology (IT) services and keep DG and project user managers informed of the status, outstanding commitments and alternatives for spending remaining funds appropriately on information technology projects.
- B5. Prepare management status reports for projects, and keep management informed on an ongoing basis.
- B6. With little oversight resolve issues to maintain consistent progress on projects.
- B7. Assist DG management in the analysis of user project requests to ensure proper coordination and prioritization of projects.

25% C. Development, enhancement, and maintenance of computer programs and systems to support agency program areas.

- C1 .Work with the Database Administrator to assure that the implementation meets technical and security requirements.
- C2. Implement and oversee the implementation of delegated Database Administrator functions (creating tables, creating indexes, granting access to tables, and doing performance tuning).
- C3. Study and refine systems and programming specifications.

- C4. Develop test data and test plans for unit testing of programs and systems testing of systems.
- C5. Design, code, test, and debug programs to meet needs and specifications.
- C6. Lead development of utility programs and job streams as needed for testing and installing systems.
- C7. Develop and maintain operating instructions and documentation for users, production staff, and programmers.
- C8. Lead installation of programs and systems for ongoing-production use by user area staff.
- C9. Coordinate the work of programmer/analysts on complex, cross-bureau projects.

15% D. Provision of advice and assistance to program area (user) staff.

- D1. Develop in-depth knowledge of assigned user areas.
- D2. Consult with user area staff on agency work planning to identify and incorporate Information Technology (IT) requirements.
- D3. Review budget initiatives for IT-related projects to ensure that users have planned for adequate resources to complete the projects, and raise issues to BTS management regarding how the proposed projects fit with other planned project.
- D4. Consult with user area staff as requested, and answer questions on data processing related matters.
- D5. Assist user area staff in writing project requests.
- D6. Orient and train user area staff to use automated systems and related systems tools effectively.
- D7. Advise users regarding technical training for their staff.
- D8. Lead and participate in design reviews for user-developed systems.
- D9. Work with BTS Policy and Planning and users in developing long range information systems plans.
- D10. Maintain good working relationships with user area staff to assure productive cooperation.

15% E. Performance of special assignments and projects.

- E1. Recommend effective use of current technology.
- E2. Assist BTS with research and development efforts utilizing new and emerging technology.
- E3. Independently oversee the work of contractors, orient them to DNR standards and procedures, provide them with direction in their analysis, and ensure that critical issues are raised to DG management for resolution.
- E4. Ensure that the information systems developed by the contractors will integrate well with other DNR information systems, do quality assurance reviews of the contractors' work, ensure that documentation is adequate, and ensure that the contractors provide sufficient training to DG staff so that DG staff can maintain and enhance the information systems after the contractors have left.
- E5. Identify issues affecting agency-wide integration of information systems and work with BTS management to resolve these issues.
- E6. Serve on BTS or DNR task groups to assist with setting of standards.

10% F. Participation in employee development programs.

- F1. Consult with other information management staff to mutually improve technical skills.
- F2. Provide technical advice and guidance to other DG staff.
- F3. Attend schools, training sessions, seminars, and workshops to increase job-related knowledge.
- F4. Study books, periodicals, and internal documents to increase job-related knowledge.
- F5. Serve on BTS or DNR task groups to achieve group goals.

Knowledge, Skills, and Abilities:

- Skill in developing, reviewing, or troubleshooting code (e.g. SQL, PL/SQL, Java, C#)
- Skilled with relational database concepts and querying and managing data in relational databases
- Ability to work with customers to understand their business needs in order to determine appropriate IT automation needs
- Skill in developing, implementing, or monitoring information systems.
- Skill with business analysis framework or methodology (e.g.: collecting/analyzing business requirements from various audiences, etc.).
- Skill in using development standards (this may include: model-view-controller design implementations, API based interfaces, integration technologies or Internet security techniques).
- Skill in UI design: HTML, CSS, XML, JavaScript, AJAX, JSON, jQuery, Bootstrap
- Ability to work independently or as part of a team
- Skill in managing data with Oracle databases.
- Ability to participate on a project team through the entire IT project life cycle.
- Skill in researching and recommending system changes or enhancements.
- Skill in troubleshooting and providing technical assistance or training to others related to IT systems or software.
- Knowledge of at least one programming language
- Formal education in computer science and/or equivalent professional experience